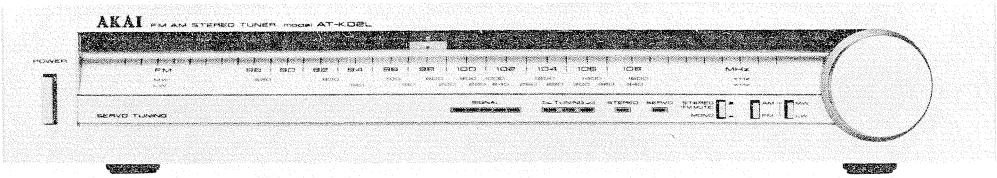
AKAI SERVICE MANUAL

AT-K02L



FM/MW/LW STEREO TUNER

MODEL AT-K02L/BL/S

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This manual must be used as a set together with separately published AT-K02 SERVICE MANUAL AND PARTS LIST.

I. TECHNICAL DATA

FM TUNER SECTION

FREQUENCY RANGE	87.5 MHz to 108 MHz
SENSITIVITY (IHF)	1.9 μV
CAPTURE RATIO	1.2 dB
SELECTIVITY (IHF)	More than 65 dB
IMAGE REJECTION	More than 60 dB (98 MHz)
IF REJECTION	More than 85 dB (98 MHz)
SPURIOUS REJECTION	More than 85 dB (98 MHz)
AM SUPPRESSION	60 dB
SIGNAL TO NOISE RATIO	73 dB
HARMONIC DISTORTION MONO	Less than 0.09% (100% modulation)
STEREO	Less than 0.12% (100% modulation)
TUNING INDICATOR	3 LEDs
SIGNAL INDICATOR	5 LEDs
MUTING	Switchable to ON-OFF
STEREO SEPARATION	More than 52 dB (1 kHz)
SUB CARRIER SUPPRESSION	More than 60 dB
OUTPUT VOLTAGE	Fixed 1V (100% modulation)
ANTENNA INPUT IMPEDANCE	300 ohms balanced, 75 ohms unbalanced

AM TUNER SECTION

	MW	LW
FREQUENCY RANGE	520 kHz to 1,605 kHz	135 kHz to 355 kHz
SENSITIVITY (IHF)	150 μV/m (bar antenna) 10 μV (external antenna)	200 μV/m (bar antenna) 17 μV (external antenna)
SELECTIVITY (IHF)	More than 30 dB	More than 30 dB
IMAGE REJECTION	More than 55 dB (1,000 kHz)	More than 50 dB (at 200 kHz)
IF REJECTION	More than 40 dB	More than 40 dB
SIGNAL TO NOISE RATIO	More than 55 dB	More than 55 dB
OUTPUT VOLTAGE	300 mV (30% modulation)	300 mV (30% modulation)
ANTENNA	Built-in ferrite bar antenna	Built-in ferrite bar antenna without ferrite bar antenna switchable

MISCELLANEOUS

SEMICONDUCTORS	Transistors: 27, Diodes: 13, LEDS: 6, ICs: 4
POWER REQUIREMENTS	220V, 50 Hz for Europe except UK 240V, 50 Hz for UK
POWER CONSUMPTION	20 W
DIMENSIONS	440 (W) x 78 (H) x 340 (D) mm (17.3 x 3.1 x 13.4) inches
WEIGHT	4.9 kg (10.8 lbs)

* For improvement purposes, specifications and design are subject to change without notice.

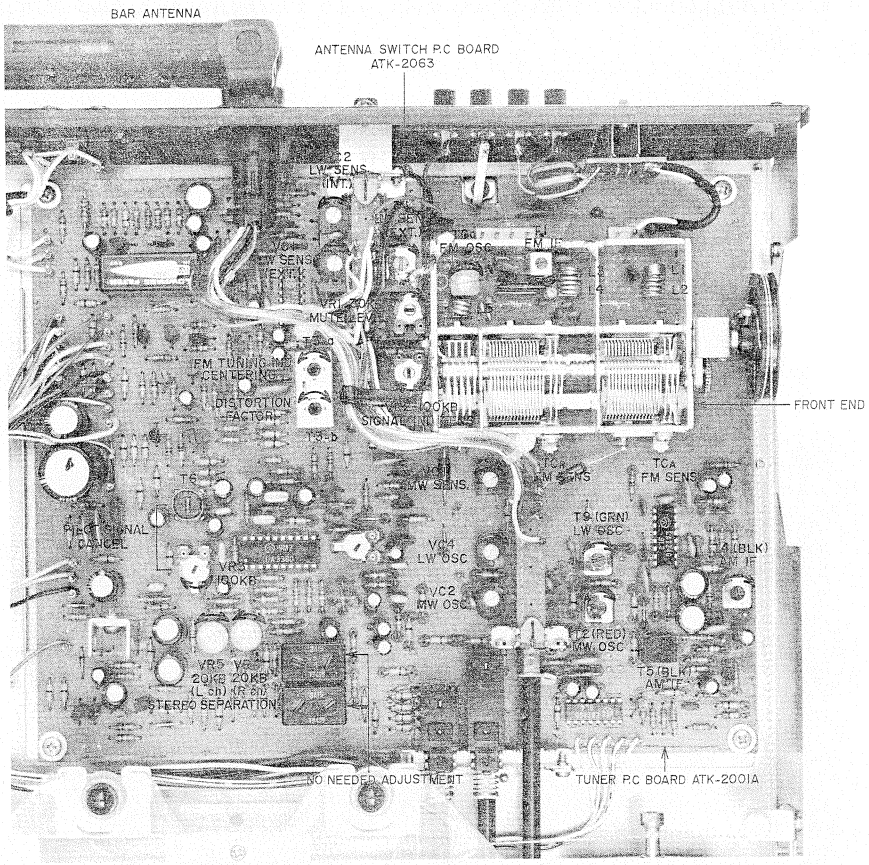


Fig. 1 Tuner P.C Board ATK-2001A

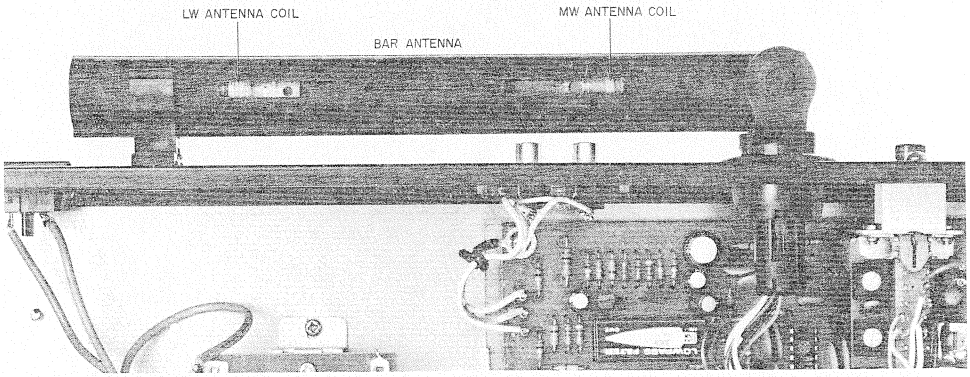
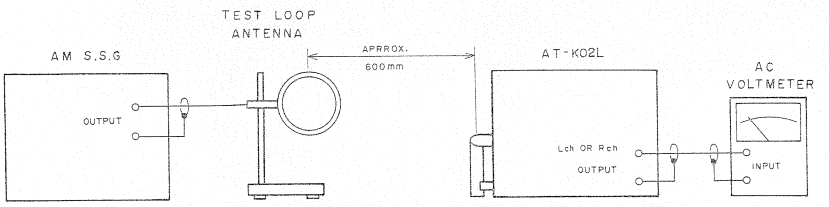
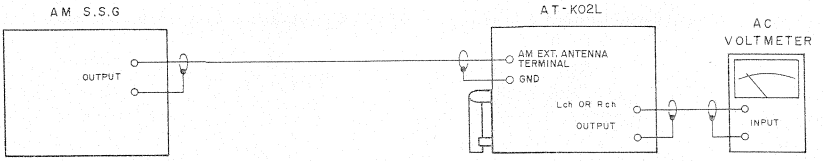


Fig. 2 Bar Antenna



(a) Except for Step 5, 6

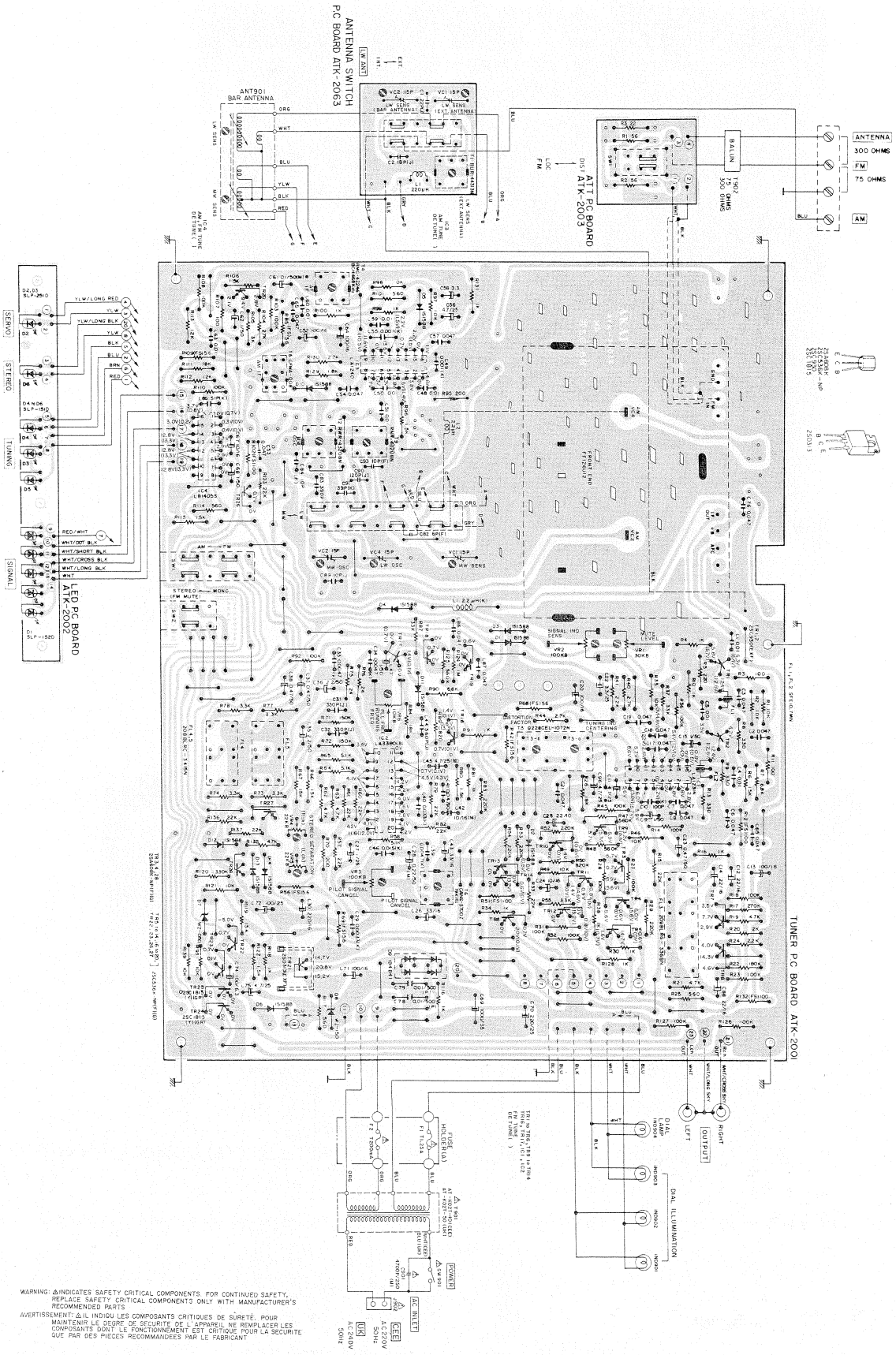


(b) Step 5, 6

Fig. 3 LW and MW Adjustment Instrument Connection

III. COMPOSITION OF VARIOUS P.C BOARDS

Tuner P.C Board ATK-2001A (3ED), LED P.C Board ATK-2002, ATT P.C Board ATK-2003 & Antenna Switch P.C Board ATK-2063


ANTENNA SWITCH P.C BOARD ATK-2063
ATT P.C BOARD ATK-2003
LED P.C BOARD ATK-2002
TUNER P.C BOARD ATK-2001
ANTENNA
300 OHMS
FM
75 OHMS
AM
BALUN
1:2 300 OHMS
SERVO
STEREO
TUNING
SIGNAL
OUTPUT
LEFT
RIGHT
DIAL ILLUMINATION
POWER
AC INLET
FUSE HOLDER (A)
WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.
AVERTISSEMENT: ⚠ IL INDIQU LES COMPOSANTS CRITIQUES DE SÛRETÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SÉCURITÉ QUE PAR DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

IV. PARTS LIST

The composite parts of Model AT-K02L, except for those which have been changed as per the list below, are identical to those of Model AT-K02.
Therefore, when ordering parts for this tape deck, please utilize Model AT-K02 Parts List.

1. TUNER P.C BOARD (ATK-2001A) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
1-1	BA320289	Tuner P.C Board Comp. AT-K02L	
1-SW1,2	ES324451	2-Throw Push SW, J-K2107	25-5-369
1-SW3	ES324452	Push SW. SUF12	25-5-368
1-T9	EO310432	OSC Coil RNR-43734N	23-4-49
1-C90	EC269515	Styrol/C. (Vert.) 120 PF(J) 50WV	24-11-3

2. ANT. SW. P.C BOARD (ATK-2063) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
2-SW1	ES319168	Push SW. SUF12	25-5-385
2-L1	EO485278	Ferri Inductor FL5H 220 μH(K)	23-1-2
2-T1	EO324453	ANT. Coil RUR44313N	23-1-405
2-VC1,2	EC616342	Trimmer/C. CTY122D33 15 PF	24-2-32

3. ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.
3-1	EC327382	MP/C. (Vert.) 0.0047 μF(M) 250 WV	24-9-134
3-2	TP327621	Dial Thread D0.4	

4. SCALE PANEL BLOCK

Ref. No.	Parts No.	Description	Schematic No.
4-1	SP324443	Scale Panel (B)	ATK-2016, 2017
4-2	SP324444	Scale Panel (B-BL)	ATK-2016, 2017

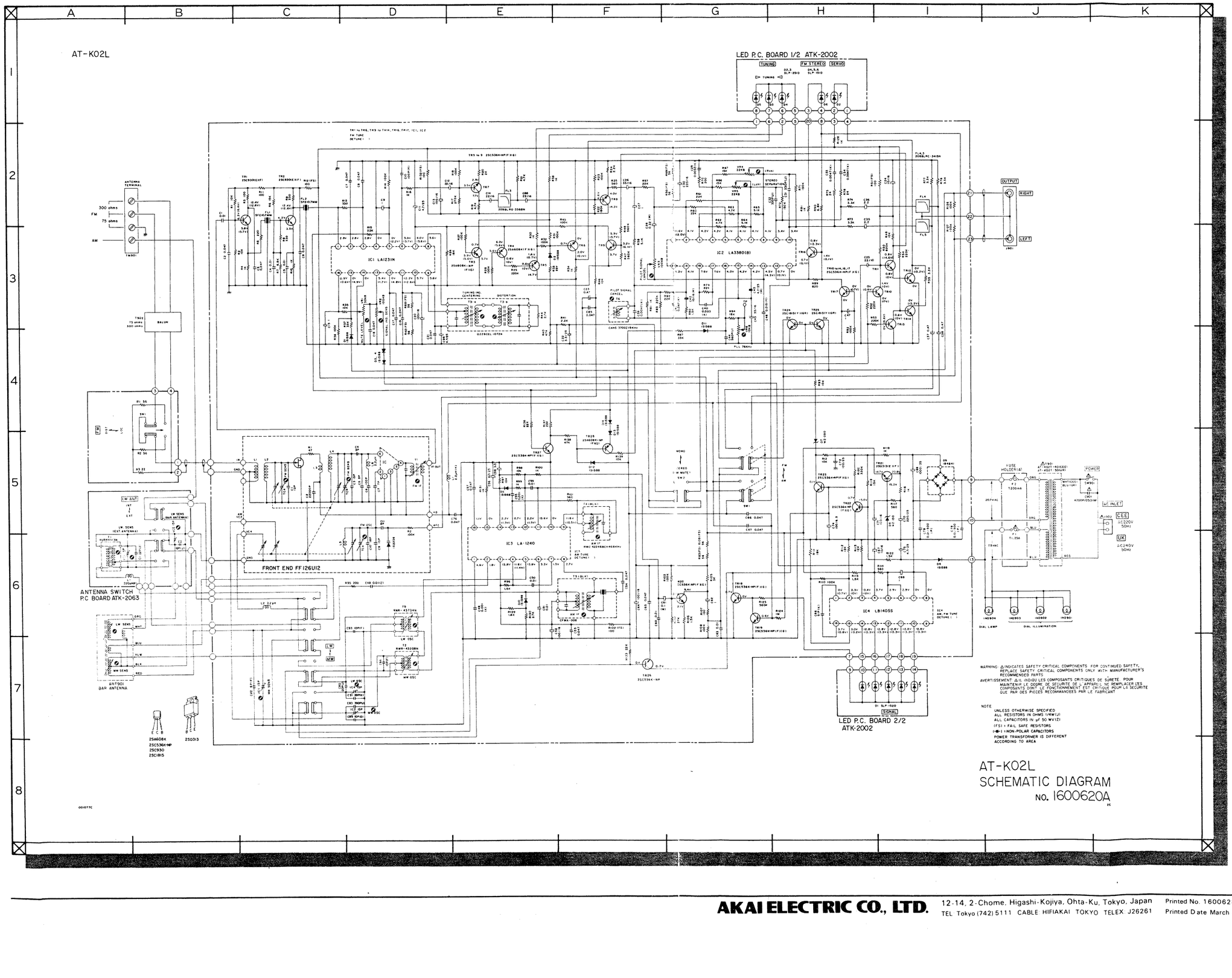
5. REAR PANEL BLOCK

Ref. No.	Parts No.	Description	Schematic No.
5-1	SP324441	Rear Panel (CEE-2) (CEE)	ATK-2040
5-2	SP324442	Rear Panel (UK, SAA-2) (UK)	ATK-2040
5-3	SK607127	Push Knob A (Black)	2-9-127
5-4	EE320334	Bar Antenna	55-1-65
5-5	ZS447761	Tapping Screw #2 BR 3x6 (Black)	
5-6	ZS317216	Screw pan 3x4	
5-7	ZS608185	Screw pan 2.6x4 (Black)	

6. FRONT PANEL BLOCK

Ref. No.	Parts No.	Description	Schematic No.
6-1	BD320291	Front Panel Block AT-K02L	
6-2	BD320292	Front Panel Block AT-K02L-BL	
6-3	BD320293	Front Panel Block AT-K02L-S	

V. SCHEMATIC DIAGRAM



AT-K02L

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